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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTINGS OF CLAIMS

1. (currently amended) A wave antenna system comprising a plurality of spaced apart wave antennas, each wave antenna comprising:

a central dielectric portion having a first side and a second side opposite the first side;

a first dielectric taper portion having a first dielectric taper portion proximal side connected with the first side of the central dielectric portion and a first dielectric taper portion distal side; and

a second dielectric taper portion having a second dielectric taper portion proximal side connected with the second side of the central dielectric portion and a second dielectric taper portion distal side,

wherein the system further comprises a plane supporting the plurality of wave antennas ,

wherein the plane has a first plane side and a second plane side and the wave antennas are inserted in the plane, the first dielectric taper portion located above the first plane side, and the second dielectric taper portion located below the second plane side, and

wherein the wave antennas are disposed in an array configuration, the array configuration having a peripheral shape formed by distal portions of the first and second dielectric taper portions, the peripheral shape being lens-shaped.

2. – 3. (canceled)

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4. (currently amended) The system of claim 1 ~~[[3]]~~, wherein the wave antennas are inserted in the plane perpendicularly to the plane.

5. (canceled)

6. (currently amended) The system of claim 1 ~~[[3]]~~, wherein the wave antennas are disposed in a substantially hexagonal configuration.

7. (canceled)

8. (currently amended) The system of claim 1 ~~[[7]]~~, wherein the peripheral shape is chosen from a group consisting of a double convex lens, a double concave lens, a plano-convex lens, and a plano-concave lens.

9. (original) The system of claim 1, wherein at least one between the first dielectric taper portion and the second dielectric taper portion is bendable.

10. – 11. (canceled)

12. (original) An array of wave antennas, each wave antenna comprising:

- a central dielectric portion, acting as a waveguide, having a first side and a second side opposite the first side;

- a first dielectric taper portion connected with the first side of the central dielectric portion; and

- a second dielectric taper portion connected with the second side of the central dielectric portion,

- wherein the central dielectric portions have a length, said length being variable among individual wave antennas, the array exhibiting a lens-shaped periphery by virtue of said variable length.

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13. (original) The array of claim 12, wherein the first and second dielectric taper portions have a length, the length of the first and second dielectric taper portions being the same along the array.

14. (original) The array of claim 12, wherein at least one between the first taper portion and the second taper portion is bendable.

15. – 19. (canceled)

20. (previously presented) A wave antenna system comprising a plurality of spaced apart wave antennas, each wave antenna comprising:

- a central dielectric portion having a first side and a second side opposite the first side;

- a first dielectric taper portion having a first dielectric taper portion proximal side connected with the first side of the central dielectric portion and a first dielectric taper portion distal side, the first dielectric taper portion proximal side having a first dielectric taper proximal width, the first dielectric taper portion distal side having a first dielectric taper distal width, the first dielectric taper proximal width being greater than the first dielectric taper distal width; and

- a second dielectric taper portion having a second dielectric taper portion proximal side connected with the second side of the central dielectric portion and a second dielectric taper portion distal side, the second dielectric taper portion proximal side having a second dielectric taper proximal width, the second dielectric taper portion distal side having a second dielectric taper distal width, the second dielectric taper proximal width being greater than the second dielectric taper distal width,

wherein the central dielectric portions have a length, said length being variable among individual wave antennas, the array exhibiting a lens-shaped periphery by virtue of said variable length.

21. (canceled)